

State telecommunications management manual

State of California
Department of General Services

Telecommunications Division
Sacramento, California

Category:

**Facilities
Management**

Chapter Title:

**Uniform Building
Cabling/Wiring
Guidelines**

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STATEWIDE CABLING/WIRING SPECIFICATIONS PLAN

The TD established a uniform building cable and wire plan for systems and services in buildings occupied by the state. The document is called "Statewide Cabling Specifications". This self-instructing plan includes specific procedural information and aids agencies in setting up a comprehensive cable and wire management plan. Telecommunications cabling systems, as defined by the plan's standards, are intended to have a useful life in excess of ten years. The standards set forth in the plan specify a cabling system based on recommended practices of the Electronics Industry Association and Telecommunications Industry Association (EIA/TIA) 568 Standard. The TD recommends the use of this plan in state owned and, where feasible, in leased facilities. For copies of this plan, submit requests in writing to TD Network Engineering.

In addition, the TD recommends that agencies obtain the most current EIA/TIA and Building Industry Services Consulting International (BISCI) Standards for the most up to date information. The following documents set forth installation guidelines and the performance criteria for materials:

- EIA/TIA 568 Telecommunications Wiring Standards
- EIA/TIA 569 Standard for Telecommunications Pathways and Spaces
- EIA/TIA 570 Residential and Light Commercial Telecomm Wiring Standards
- EIA/TIA 606 Admin. Standard for the Telecomm Infrastructure in Buildings
- EIA/TIA 607 Grounding and Bonding of Communication Systems
- TSB-36 Additional Specs for Unshielded Twisted Pair Cables
- TSB-40 Additional Specs for UTP Connecting Hardware
- BICSI Telecommunications Distribution Methods Manual

CABLING AND WIRING GUIDELINES IN CALDEX BUILDINGS

The state owns the distribution cable system in state buildings where CALDEX is the line service provider. In those buildings, the TD provides the following Moves, Adds, & Changes (MAC) Services:

- Performs all Main Distribution Frame (MDF) and riser cable pair assignments and cross connects,
- Maintains building riser cable and wire pairs,
- Installs additional riser cable and cross connect panels in equipment rooms as necessary to meet service order requirements,
- Repairs voice and data circuits,
- Installs and moves stations as required by state agencies,
- Installs new station wiring and associated hardware required to support the cabling and wiring installation for voice and data services,
- Interconnects additional state buildings into the CALDEX system, and
- Provides cost estimates for major cabling and wiring projects.

TYPES OF WIRE AND CABLE SERVICE TECHNICIANS

For CALDEX buildings the TD has established the following classes of technicians for cabling and wiring:

- **MAC Technician** — a TD state or contracted employee. The only one authorized by the TD to make cross connects from the MDF to riser cable pairs or riser cable pair assignments in satellite closets. If authorized by the agency, this person may also perform additional cable and wire installation.
- **Vendor Technician** — a non-state employee designated by the agency to perform installations, but cannot assign riser cable or MDF pairs.
- **Agency Technician** — a state agency employee assigned to maintain building voice and data circuits, but cannot assign riser cable or MDF pairs.

AUTHORIZED MDF AND RISER CABLE PAIR ASSIGNMENTS IN CALDEX BUILDINGS

It is important to maintain the accuracy of cable pair assignment records in CALDEX buildings to ensure that agency work orders and service requests are not impacted by unauthorized cabling and wiring work. Therefore, any cabling or wiring work that has an impact on the main distribution frame or riser cable must be coordinated with the TD's authorized MAC technicians. Agency or Vendor Technicians must coordinate with the MAC technicians when performing any cable and wire work in CALDEX buildings. Contact the Client Service Center to coordinate work with the MAC technicians.

CALDEX LINE SERVICE IN CALDEX BUILDINGS

Complete a Telecommunications Service Request, STD. 20 form requesting cabling and wiring service and send it to the Client Service Center.

- ♦ Write in "MAC Contract" on the STD. 20 form and attach a floor plan.

- ♦ If applicable, write in “Agency Technician” and the vendor name on the STD. 20 form and attach a floor plan.
- ♦ If applicable, write in “Vendor” and the vendor name on the STD. 20 form and attach a floor plan.
- ♦ Write in “Request Consultation” on the STD. 20 form, attach a floor plan and the TD will offer engineering consultation to help determine cabling and wiring requirements.

NON-CALDEX LINE SERVICES IN CALDEX BUILDINGS

Any agency requests for non-CALDEX line services in a CALDEX building must be authorized by the TD. See *Ch. 0700.0, Exemptions to Consolidated Services Usage Section*. If requested service is approved by the TD, access to equipment rooms, cable pair assignments and cabling and wire pair cross-connect work must be coordinated with TD’s authorized MAC technicians. Submit the following necessary documents to the Client Service Center:

- A STD. 20 form requesting cabling and wiring work to be performed.
- A floor plan if “Request Consultation” is checked. The TD offers engineering consultations to help determine cabling and wiring requirements.

See Chapter 0101.0, TD Reference Guide, for all TD contact information referenced within this chapter.